

## REMARKS

Applicants respectfully request that the above-identified application be reexamined.

Claims 1-31 are pending in this application. The Office Action mailed March 3, 2008 (hereinafter "Office Action"), rejected Claims 1-14 and 16-23 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,578,046, issued to Chang et al. (hereinafter "Chang et al."). Claims 15 and 24-31 were rejected under 35 U.S.C. § 103(a) as being unpatentable in view of Chang et al., taken in view of U.S. Patent No. 6,792,431, issued to Tamboli et al. (hereinafter "Tamboli et al."). While applicants disagree, in order to advance the prosecution of the present application, independent Claims 1, 13, and 23 have been amended.

Pursuant to 37 C.F.R. § 1.111 and for the reasons set forth below, applicants respectfully request reconsideration and allowance of the pending claims. Prior to discussing in detail why applicants believe that all the claims in this application are allowable, a brief description of the disclosed subject matter and brief descriptions of the teachings of the cited and applied references are provided. The following descriptions of the disclosed subject matter and the cited and applied references are not provided to define the scope or interpretation of any of the claims of this application. Instead, these descriptions are provided solely to assist the United States Patent and Trademark Office in recognizing the differences between the pending claims and the cited references, and should not be construed as limiting on the disclosed subject matter.

### Disclosed Subject Matter

A plurality of data stores, each of a different type, that store one or more data objects are disclosed. An object-oriented heterogeneous data store interface for interacting with the data stores is also disclosed. The object-oriented heterogeneous data store interface includes a query component and a provider interface that specifies a query behavior with a query component parameter for provider components. For each type of data store, there is a provider plug-in to the

object-oriented heterogeneous data store interface. Each provider plug-in includes one or more provider components that conform to the provider interface.

The query component of the object-oriented heterogeneous data store interface is instantiated. Each query component has an add expression behavior with at least one query term parameter and a query operator parameter. A query expression is added to the instantiated query component with the add expression behavior of the query component. The query component is provided to a data store component of the object-oriented heterogeneous data store interface.

The object-oriented heterogeneous data store interface includes one or more data store object components corresponding to data objects stored in the data stores. A data store object design graphical user interface (GUI) is utilized to build graphical representations of data objects. A data store object source code generator generates object-oriented programming language source code for each data store object component of the object-oriented heterogeneous data store interface.

#### Summary of Chang et al. (U.S. Patent No. 6,578,046)

A computer method and system capable of searching multiple heterogeneous data stores with heterogeneous data types by employing an object oriented data model to define a federated data store object. The federated query object translates a generic query into the appropriate queries for each data store, the federated data store object acts as a virtual data store for multiple heterogeneous data stores with the ability to map concepts between data stores, and the federated collection object represents results from a federated query in a hierarchy that maintains sub-grouping information from each data store to allow accessing of results by data store or as a single collection of results. The federated objects thus provide user applications with enhanced accessibility of different hierarchies of information, as well as more robust search capabilities.

While disclosing a method of searching heterogeneous data stores using a federated data store object, Chang et al. fails to teach or suggest a data store component being associated with a

data store administrator group, the data store administrator group having the ability to add and remove permissions to access the data store component, the identity service component including a directory of each data store component, wherein the data store objects referenced by the identity service component become logically related. Chang et al. also fails to teach or suggest an enterprise component referencing at least one identity service component, the enterprise component being configured to load missing identity service components, unload unneeded identity service components, and query for identity service component updates, the enterprise component being associated with an enterprise administrator group, the enterprise administrator group having the ability to grant, view, change, and remove access permission for each data store user.

Tamboli et al. purportedly discloses data integration including extracting a first native record with a first native format from a first native repository through a first adapter. The first adapter is loosely coupled for data integration to a data integration application. The first native format has a particular data type which transforms the first native record with the first native format to a first native record with a dynamic common format. The dynamic common format is a subset of a dynamic common model. The dynamic common model comprises mappings to and from the dynamic common format for all native records in all data types, transforming the format of the first native record with a dynamic common format to a first native record with a second native format, and inserting, through a second adapter, also loosely coupled to the data integration application, the first native record with the second native format into a second native repository.

#### Rejection of Claims 1-14 and 16-23 Under 35 U.S.C. § 102(e)

As stated above, Claims 1-14 and 16-23 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,578,046, issued to Chang et al.

Claim 1, as amended, reads as follows:

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A computerized system, comprising:

(a) a plurality of data stores, each data store comprising a different data type configured to store at least one data store object;

(b) an object-oriented heterogeneous data store interface comprising:

(i) a data store component corresponding to each data store, **the data store component logically related to an identity service component, the data store component being associated with a data store administrator group, the data store administrator group having the ability to add and remove permissions to access the data store component, the identity service component** including a directory of each data store component;

(ii) an enterprise component corresponding to the data store component, the enterprise component referencing the data store component by utilizing the directory included in the identity service component, **the enterprise component:**

(1) **referencing at least one identity service component;**

(2) **configured to load missing identity service components, unload unneeded identity service components, and query for identity service component updates; and**

(3) **associated with an enterprise administrator group, the enterprise administrator group having the ability to grant, view, change, and remove access permission for each data store user;**

(iii) a query component comprising a query specification attribute; and

(iv) a provider interface comprising a query component behavior specification specifying a query behavior with said query specification attribute of said query component; and

(c) for each data store, a provider plug-in to the object-oriented heterogeneous data store interface, each provider plug-in comprising at least one provider component configured with a behavior conforming to the query component behavior specification of the provider interface.

(Emphasis added.)

Applicants respectfully submit that Claim 1, as amended, is not anticipated by Chang et al. as Chang et al. fails to teach, disclose, or suggest the recitations of Claim 1 marked in bold. Therefore, Claim 1, as amended, is submitted to be allowable over Chang et al.

Claims 2-12, which depend directly or indirectly from Claim 1, are also submitted to be allowable for at least the reasons why Claim 1 is submitted to be allowable.

Because Claims 13 and 23 have been amended in a manner similar to Claim 1, albeit in a slightly different form, they are submitted to be allowable for at least the same reasons as Claim 1. Claims 14 and 16-22, which depend directly or indirectly from Claim 13, are also submitted to be allowable for at least the reasons why Claim 13 is submitted to be allowable.

Rejection of Claims 15 and 24-31 Under 35 U.S.C. § 103(a)

As stated above, Claims 15 and 24-31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chang et al. in view of U.S. Patent No. 6,792,431, issued to Tamboli et al.

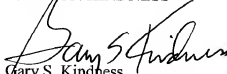
Claim 15 depends from Claim 13 and Claims 24-31 depend directly or indirectly from Claim 23. Since Tamboli et al. does not make up for the deficiencies of Chang et al. discussed above with respect to Claim 1, and because Claims 13 and 23, as amended, are submitted to be allowable over Chang et al., Claims 15 and 24-31 are also allowable for at least the same reasons that Claims 13 and 23 are allowable.

CONCLUSION

In view of the foregoing amendments and remarks, applicants respectfully submit that the pending claims in the present application are allowable. Early and favorable action allowing these claims and passing this application to issue is respectfully solicited. If the Examiner has any questions, the Examiner is invited to contact applicants' attorney at the number set forth below.

Respectfully submitted,

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